2008

CleanHarbors
ENVIRONMENTAL SERVICES

4500 15th St. E., Unit A • Tacoma, WA 98424 • Phone 253.926.0580, Fax 253.926.0599

September 2, 2009

Mr. Jim Brown
Alaska Copper Works
3200 6th Avenue S
Seattle, Washington 98134

RE: Washington State Pollution Prevention Plan Update
2008 Plan Update Submission Notice

Dear Mr. Brown

Please find the enclosed electronic copy of the Pollution Prevention Plan update for year ending 2008 and submitted on your behalf to the Washington Department of Ecology.

No signature is necessary. This is only an update to the 5 year plan originally submitted in base year 2006.

Retain this copy for your records.

This satisfies Washington State P2 plan update submittal requirements for the year 2008.

The next update for 2009 is due September 1, 2010.

You may wish to review the update to determine if your waste reduction objectives are in line with your expectations.

Please feel free to contact me any time should you have questions regarding the information contained in the updated plan, how to further reduction hazardous waste generation, or to learn more about State and Federal waste reduction training and informational programs.

Sincerely,

Matthew Dunn
503-997-0339

Pollution Prevention Plan Update 2008

Facility Name: **Alaskan Copper Works**
Industry Type: Fabricated Pipe and Pipe Fitting Manufacturing
NAIC Code: 332996
EPA ID# or CRK#: WAD980738546
Base Year: 2006

Description of Products and Services

Full service center and manufacturer of corrostion resistant alloy products.

Production Level

Units	2006	2007	2008	2009	2010	2011
Lbs of material processed	29,210,133	31,230,000	10,421,732	0	0	0
Ratio	1.00	1.07	.35	0.00	0.00	0.00

Previous Accomplishments

Metal Fab Processing
2007-2008
Chrome slag toxicity reduction: Chrome slag generated from plasma table cutting processing was subjected to an on site pilot test program started in mid 2007 with actual on site hazardous characteristics reduction treatment occurring in early 2008 resulting in 100% chrome slag toxicity reduction. For the calendar year of 2008 dangerous waste reduction occurred under treatment by generator provisions but still had to be reported due to treatment outside of process and lack of local recycling disposition outlets. As of 2009 treatment will be conducted within the process so that no dangerous waste generation will occur from this process.

Pipe Painting
2007-2008
Opportunity originally identified in 2001 by using smaller amounts of solvents to clean parts; only using what is needed subject to fluctuating annual production demand. An estimated 61% total solvent use reduction established at end of 2002. Currently only small amounts of solvent in the form of spray marking paints, dyes, and parts cleaning solvents are purchased and use as needed keeping hazardous materials inventory to a minimum. All used solvents and spray cans are dispensed, containerized and added for off-site solvent fuels program

Materials account/mgmt
2007-2006
Initially started in 2002, material purchasing tracking by accounting helps to account for all material purchased and combined with the annual waste report provides a complete use and disposal tracking mechanism to view overall hazardous material control throughout all portions of manufacturing.

Pollution Prevention Training

-- New employee orientation training is provided to employees emphasizing the company environmental policy, hazardous materials and waste management procedures, pollution prevention techniques and goals, and emergency response training.
-- Annual employee refresher training highlighting proper hazardous materials handling, use and storage, waste reduction assessment techniques, proper waste management procedures and related subjects, pollution prevention principles, and company environmental policies and management systems.
-- Waste management issues are addressed during safety meetings.
-- Open-door policy regarding safety and environmental concerns to their supervisors, who in turn bring these concerns to the Operations Manager for review and implementation.
-- Promotion of employee involvement in environmentally friendly practices.
-- Contracting outside environmental management firm to assist in polution prevention planning and provide new technologies for waste reduction or product substituation.
-- For 2008 additional stormwater management training has been incorporated into the new hire and annual refresher training program

Employee Involvement

Operations Manager (James Brown): In charge of overall P2 Plan; coordinates management policies, project support, technical and economic evaluations; implements pollution prevention in all areas of the facility; ensures design modifications are made to reduce pollution impact.

Plan Contact: James Brown, Operations Manager; Shawn Estrada, Clean Harbors Environmental Services.

Cost Accounting

Currently, environmental costs are placed into the category of overhead. Our accounting system has been identified as an opportunity to track costs more easily and will be assessed in the near future.

Five-Year Numeric Performance Goals

Goals for the 5-year life of this plan.	2007	2008	2009	2010	2011
Hazardous Substance Use Reduction (lbs)	100	100	100		
Hazardous Waste Reduction (lbs)	25000	26000	32000		
Hazardous Waste Recycling (lbs)	25000	26000	32000		
On-site Hazardous Waste Treatment (lbs)	25000	26000	32000		
Wastewater Reduction (gal)					
Energy Conservation (kWh)					
Cost Savings ($)					
Air Emissions Reduction (lbs)					
Solid Waste Reduction (lbs)					
CO2 Emissions Reduction (lbs)					

Non-Numeric Performance Goals Hazardous waste reduction has been achieved by better waste dewatering processing and implementation of specific waste stream on-site treatment and process waste neutralization. As a result of new treatment technologies, hazardous waste recycling goals will adjust proportionally since generated hazardous waste will be rendered non hazardous with resulting waste shipped for recycling or beneficial use. There should be no increase in volume of water use as a result on site treatment and neutralization.

Management Policy

Establishing and maintaining environmental polices that promote better hazardous material and waste handling and safer workplace will continue to be a paramount prority. Since the introduction of an independent consultant, we have increased our understanding and have addressed a number of hazardous management issues in the workplace and will continue to improve on our overall management plan. Our organization is committed to the purpose of this plan and hereby submits it to the Department of Ecology.

James Brown
Operations Manager 9/1/2009

Processes and Opportunities

Process	Opportunity
Metal Fab Processing GoTo	
	Chrome slag toxicity reduction GoTo
	Chrome toxicity reduction GoTo
Pipe Painting GoTo	
	Ship paint waste to off-site recycling facility GoTo
	Continuing employee training to conserve use of solvents GoTo
	Incorporate the use of less toxic or bio degradable paints and dyes
Passivating Process GoTo	
	Application of spray rinse and vapor controls to reduce evaporation and nitric acid use GoTo
Enter New Process Name	

Process Metal Fab Processing GoTo Help

DESCRIPTION: Stainless steel sheet and plate products are used to produce pipe fittings. Sheets are tolled into pipe which are welded, x-rayed, inspected, passivated (explained on separate process description form), and shipped.

RESEARCH:

☐Magazines/journals	Name(s):
☐Conferences	Which ones?
X Vendors	Name(s): Clean Harbors Environmental Services
☐Internet searches	Results:
X Industry sources	Who? Environmental, Compliance & Remediation, Inc (waste reduction & recycling ideas)
☐Employee suggestions	Who & what?
X Government staff	Who & which agency? DOE
☐Other	Explain:

HAZARDOUS SUBSTANCES USED (LBS)

Product Name	Ingredients		2006	2007	2008	2009	2010	2011
	CAS #	%						
Stainless Steel	N450 MANGANESE CMPNDS	1	23,717,073	23,801.52	3,396,998			
	N090 CHROMIUM CMPNDS	18						
	N495 NICKEL CMPNDS	8						

HAZARDOUS WASTES GENERATED

Waste (LBS)	2006	2007	2008	2009	2010	2011
Plasma cutting cleanout sludge	55990	62,486	23,210			

TREATMENT, RECYCLING, RELEASES OR OTHER RESOURCES USED						
Resource or Release (State Units)	2006	2007	2008	2009	2010	2011
lb	0	0	46420			

Opportunity Chrome slag toxicity reduction

Describe the opportunity: Implimentaion of new technology to reduce chrome waste toxicity prior to weast generation and rescheduling of stainless steel cutting to reduce overall waste generation

Targeted Hazardous Products/Wastes: Cutting table waste slag

Observations:

Year	Observations
2007	2007 did afford an opportunity to put bench testing of chrome slag treatment into actual use. Testing did show chrome passing TCLP. Outlets for treated non hazardous slag waste are very limitied.
2008	Treated successfully and economically almost 2/3 of hazardous waste generated
2009	
2010	
2011	

What are the estimated annual environmental effects of this opportunity? Help

Hazardous Substance Use Reduction (lbs) 0	Wastewater Reduction (gal) 0
Hazardous Waste Reduction (lbs) 46420	Energy Conservation (kWh) 0
Recycling of Hazardous Waste (lbs) 0	Cost Savings ($) 21,527.00
Treatment of Hazardous Waste (lbs) 46420	Air Emissions Reduction (lbs) 0
Solid Waste Reduction (lbs) 0	CO2 Emissions Reduction (lbs) 0
Other Effects	

Feasibility: Help

Is this opportunity technically feasible? ☒ Yes ☐ Needs Further Study ☐ No. If no, explain why:

Will environmental or health risks be reduced and not shifted? ☒ Yes ☐ No. If no, explain any shifting of risks:

Is this opportunity economically feasible? ☒ Yes ☐ Needs Further Study ☐ No. If no, explain why:

Implementation schedule: Help

☒ Selected for implementation. When? December 2007.
☐ Scheduled for further study. When will the study be complete? 2008
☐ Rejected. Why?

What problems will there be implementing this? Space

Process Pipe Painting

DESCRIPTION: Pipe painting occurs at various prodution locations requiring the use of spray paints, costings, and solvents

RESEARCH:

☐ Magazines/journals Name(s):
☐ Conferences Which ones?

☒Vendors	Name(s): Emerald Services, Safety Kleen
☐Internet searches	Results:
☒Industry sources	Who? Environmental Compliance & Remediation, Inc. (waste reduction & recycling)
☐Employee suggestions	Who & what?
☐Government staff	Who & which agency?
☐Other	Explain:

HAZARDOUS SUBSTANCES USED (LBS)								
Product Name	**Ingredients**		**2006**	**2007**	**2008**	**2009**	**2010**	**2011**
	CAS #	**%**	**2350**	**2450**	**2060**			
	Paint and solvent mixtures	0						

HAZARDOUS WASTES GENERATED						
Waste (LBS)	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**
Waste paint / thinners	**155**	**242**	**991**			

TREATMENT, RECYCLING, RELEASES OR OTHER RESOURCES USED						
Resource or Release (State Units)	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**
Off-site recycling of paint waste thinners	**155**	**242**	**131**			

Opportunity Ship paint waste to off-site recycling facility

Describe the opportunity: Select vendor with capabilities to recycle waste paints and solvents not constituting fuels burning or recovery. Continue promoting solvent conservation practices by employees via repetitive training, postings and improved waste paint collection and storage availability.

Targeted Hazardous Products/Wastes: Paint waste - thinners.

Observations:

Year	Observations
2007	Paint waste/related solvents for cleaning are used sparingly and found most effective for the specific application. No new products have been identified that are superior substitutions and conservation seems to be the best form of reduction
2008	Substitution found for paint spray with soy based or less toxic inks and dyes
2009	
2010	
2011	

What are the estimated annual environmental effects of this opportunity? Help

Hazardous Substance Use Reduction (lbs) 390	Wastewater Reduction (gal) 0
Hazardous Waste Reduction (lbs) +749	Energy Conservation (kWh) 0
Recycling of Hazardous Waste (lbs) 131	Cost Savings ($) 0
Treatment of Hazardous Waste (lbs) 0	Air Emissions Reduction (lbs) 0
Solid Waste Reduction (lbs) 0	CO2 Emissions Reduction (lbs) 0
Other Effects	

Feasibility: Help

Is this opportunity technically feasible? ☒ Yes ☐ Needs Further Study ☐ No. If no, explain why:

Will environmental or health risks be reduced and not shifted? ☒ Yes ☐ No. If no, explain any shifting of risks:

Is this opportunity economically feasible? ☒ Yes ☐ Needs Further Study ☐ No. If no, explain why:

Implementation schedule: Help

☒ Selected for implementation. When? Continuation from 2003
☐ Scheduled for further study. When will the study be complete?
☐ Rejected. Why?

What problems will there be implementing this? Maintining cost effecive means through off site recylcer to accept and provide reliable pick ups of small amounts of recyclable paints and solvents

Process Passivating Process

DESCRIPTION: Stainless steel pipes and parts are dipped into a 10% nitric acid and 1-3% ammoniumbifluoride solution for cleaning and passivation prior to being shipped.

RESEARCH:

☐Magazines/journals	Name(s):
☐Conferences	Which ones?
☒Vendors	Name(s): Clean Harbors Environmental Services
☐Internet searches	Results:
☒Industry sources	Who? Environmental Compliance & Remediation, Inc.
☒Employee suggestions	Who & what? James Brown, Operations Manager based on industry experience.
☐Government staff	Who & which agency?
☐Other	Explain:

HAZARDOUS SUBSTANCES USED (LBS)

Product Name	Ingredients		2006	2007	2008	2009	2010	2011
Nitric Acid	CAS # 7697-37-2	%	6000	1500	1000			
	NITRIC ACID	66						
Hydrofluoric Acid	CAS # 7664-39-3	%	200	50	<50			
	HYDROFLUORIC ACID	49						

HAZARDOUS WASTES GENERATED

Waste (LBS)	2006	2007	2008	2009	2010	2011
Nitric Acid Mixture	34589	0	0			
Tank Bottom Sludge	5280	0	0			
Tank Bottom Treatment Sludge	16,984	12,487	13,423			

TREATMENT, RECYCLING, RELEASES OR OTHER RESOURCES USED

Resource or Release (State Units)	2006	2007	2008	2009	2010	2011
	0	0	0			

Opportunity Application of rinse spray application to reduce total nitric acid purchased and waste volume

Describe the opportunity: Continuation of waste overspray and evaporation controls and spillage by use of covers and drip collection devices

Targeted Hazardous Products/Wastes: Nitric acid solutions

Observations:

Year	Observations
2007	Hazardous waste treatment prior to discharge has seen significant reduction in discharge volumes due to reduction in overspray.
2008	Marginal increase in generation due to passivation area decontamination activities in 2008
2009	
2010	
2011	

What are the estimated annual environmental effects of this opportunity? Help

Hazardous Substance Use Reduction (lbs) 500+/-
Hazardous Waste Reduction (lbs) + 936
Recycling of Hazardous Waste (lbs) 0
Treatment of Hazardous Waste (lbs) 0
Solid Waste Reduction (lbs)
Other Effects

Wastewater Reduction (gal)
Energy Conservation (kWh)
Cost Savings ($)
Air Emissions Reduction (lbs)
CO2 Emissions Reduction (lbs)

Feasibility: Help

Is this opportunity technically feasible? ☒ Yes ☐ Needs Further Study ☐ No. If no, explain why:

Will environmental or health risks be reduced and not shifted? ☒ Yes ☐ No. If no, explain any shifting of risks:

Is this opportunity economically feasible? ☒ Yes ☐ Needs Further Study ☐ No. If no, explain why:

Implementation schedule: Help

☒ Selected for implementation. When? Continuing since 2003
☐ Scheduled for further study. When will the study be complete?
☐ Rejected. Why?

What problems will there be implementing this?

Process: Materials accounting / mgmt

DESCRIPTION: Unscheduled accumulations of lab wastes and misc. regulated materials

RESEARCH:

☐Magazines/journals	Name(s):
☐Conferences	Which ones?
☒Vendors	Name(s): Clean Harbors Environmental Services
☐Internet searches	Results:
☐Industry sources	Who?
☐Employee suggestions	Who & what?
☐Government staff	Who & which agency?
☐Other	Explain:

HAZARDOUS SUBSTANCES USED (LBS)

Product Name	Ingredients		2006	2007	2008	2009	2010	2011
Various	CAS #	%			55			
	VARIOUS	0						

HAZARDOUS WASTES GENERATED

Waste (LBS)	2006	2007	2008	2009	2010	2011
PCB Ballasts	2000	0	0			
Cleaning Compounds	0	0	55			
Lab Packs and Non Paint Aresol Spray Cans	5	7	15			

TREATMENT, RECYCLING, RELEASES OR OTHER RESOURCES USED

Resource or Release (State Units)	2006	2007	2008	2009	2010	2011
POUNDS	0	0	0			

Opportunity: Product tracking and accounting

Describe the opportunity: Identification of generation sources and conduct small quanities treatment or consolidation prior to generation of waste

Targeted Hazardous Products/Wastes: Non production small chemistries useage

Observations:

Year	Observations
2007	Purchasing ordering less materials in aerosol form and substation with less toxic bulk materials
2008	Began tracking of miscellaneous waste material generation
2009	
2010	
2011	

What are the estimated annual environmental effects of this opportunity? Help

Hazardous Substance Use Reduction (lbs) 0	Wastewater Reduction (gal) 0
Hazardous Waste Reduction (lbs) + 70	Energy Conservation (kWh) 0
Recycling of Hazardous Waste (lbs) 0	Cost Savings ($) 0
Treatment of Hazardous Waste (lbs) 0	Air Emissions Reduction (lbs) 0
Solid Waste Reduction (lbs) 0	CO2 Emissions Reduction (lbs) 0

Other Effects Materials processed data will be easier to come by for reporting and accounting purposes.

Feasibility: Help

Is this opportunity technically feasible? ☒ Yes ☐ Needs Further Study ☐ No. If no, explain why:

Will environmental or health risks be reduced and not shifted? ☒ Yes ☐ No. If no, explain any shifting of risks:

Is this opportunity economically feasible? ☒ Yes ☐ Needs Further Study ☐ No. If no, explain why:

Implementation schedule: Help

☒ Selected for implementation. When? Continuation from 2002
☐ Scheduled for further study. When will the study be complete?
☐ Rejected. Why?

What problems will there be implementing this? Will be hiring an outside consultant to assist in tracking waste generation costs from various sources.

For Official Use Only:
P3ID: 29
Base Year: 2006